

# ABSTRACT

In a permanent magnet rotor, a power transmitting shaft is connected to an axial end of a solid cylindrical permanent magnet, and a reinforcement sleeve is fitted  
5 on the outer circumferential surface of the permanent magnet. Thus, the shaft is not required to be passed through the permanent magnet as was the case with the conventional permanent magnet rotor for the purpose of transmitting the rotational torque and increasing the overall rigidity, and the increase in the axial dimension of the rotor due to the reduction in the cross sectional area of the permanent magnet can be  
10 avoided. Also, because the sleeve surrounds the permanent magnet, the resistance to centrifugal stress resulting from a high speed rotation and repeated bending stress owing to vibrations can be improved.